



Driving Safety Performance through Accountability

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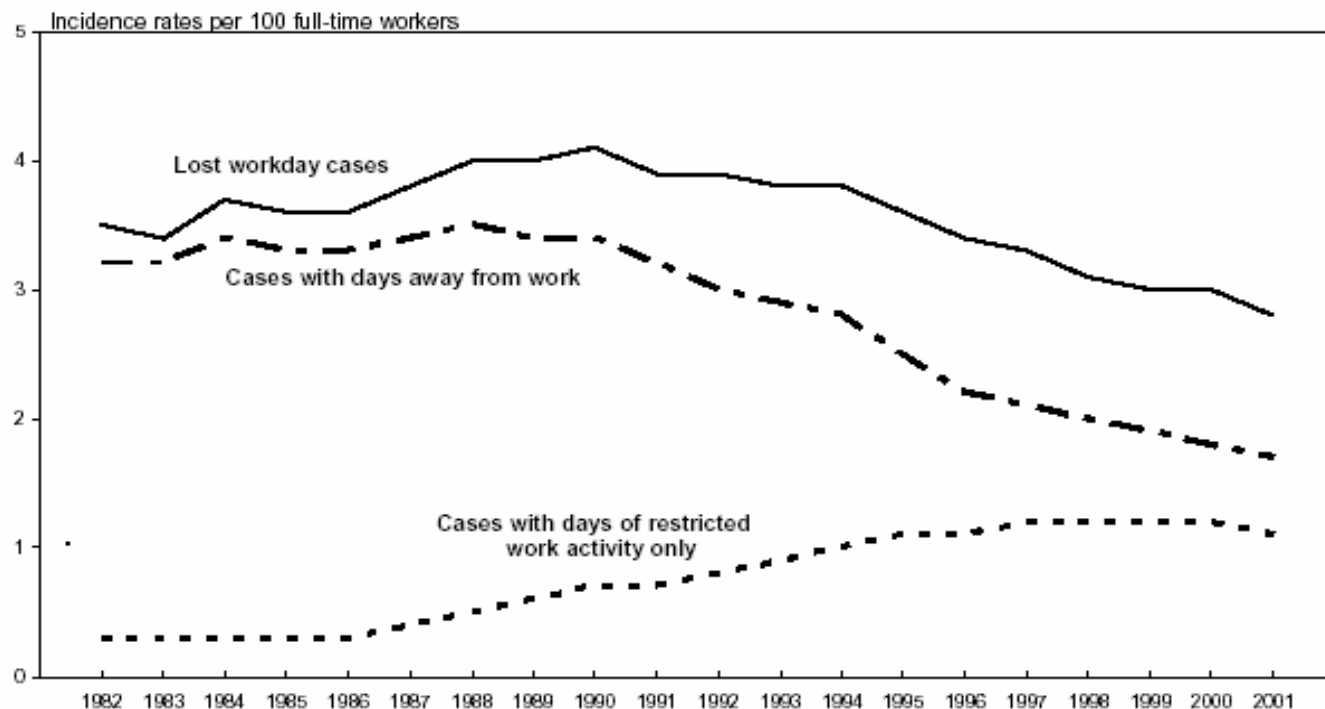


Rocky Mountain EHS Peer Group – April 19, 2007



Cross Roads of Accident Statistics

Chart 3. Lost workday incidence rates, injuries and illnesses, 1982-2001





Is Occupational Safety Really Improving ?

	2002	2003	2004	2005
TCR - Total Recordable Case Rate (100 employees)	5.3	5.0	4.8	4.6
TCR Oil & Gas Industry (Explor/Drill/Prod)	3.4	1.8	2.6	2.1
DART - Days Away, Restricted, and Transferred (DART) (100 employees)	2.8	2.6	2.5	2.4
DART - Oil & Gas Industry (Explor/Drill/Prod)	2.2	0.8	1.2	1.2

Do low injury rates ensure everyone will return home safe tonight ?



Fatality Rates

The Oil & Gas Industry still has room for improvement

	2003	2004	2005
Occupational Fatality Rate (per 100,000 employees)	4.0	4.1	4.0
Fatality Rate Oil & Gas Industry (Explor/Drill/Prod)	71.0	81.0	89.0
Total Annual Fatalities	5,575	5,764	5,702



OSHA's Response - LEP

- Local Emphasis Program for Oil & Gas
 - Fatality Rate is 20 times the national average
 - Focus: Drilling and Servicing Companies (RigData)
 - Excludes employers with 10 or fewer employees
 - Counties: Weld, Garfield, Mesa, La Plata, Las Animas, San Miguel



OSHA's Response - LEP

- Who is the real “Wildcard” ?
 - New/Small Contractors
- OSHA's attempt at Accountability?
 - Not afraid to use the Multi-Employer Worksite rule



Top 10 OSHA Citations

- 1910.23 Floor Openings/Guardrails
- 1910.130 PPE/Respiratory Protection/H₂S
- 1910.147 Lockout/Tagout
- 1910.184 Slings/Hoisting Equipment
- 1910.212 Machine Guarding
- 1910.305 Electrical Wiring
- 1910.1200 HazCom
- 1910.151 First Aid
- 1910.157 Fire Extinguishers
- 5(a)(1) Improper set up of Drilling Rig or Workover Rig

*If you don't own a copy of
API Recommended Practice 54 or 74...get a copy!*



Industry's Response

- Pre-Qualify Contractors – (e.g. PEC's SSQ)
 - Trailing indicators = 40% weighting
 - TCR (< 2.1 ?)
 - DART Rate (< 1.2 ?)
 - EMR < 1.0 & you're better than the rest
 - Safety Management Programs = 60% weighting
 - Substance Abuse Program
 - Safety Program Review
 - Training Documentation
 - Mandatory JSA – Job Safety Analysis



Other Metrics to Consider

- WC Claims Cost per \$ 100 payroll
 - Number of WC Claims per \$ 1 million of payroll
 - Property Damage Costs
 - Preventable Accidents per 10 vehicles
-
- Although Important...these are all metrics which only show how “bad” we are doing...hence the name lagging indicators



Other Metrics to Consider

Internal Benchmarking based on Insurance Workers' Compensation Costs

NCCI Code	WC Insurance Cost (per \$ 100 of payroll)	Target (less than 65% loss ratio) Loss Ratio = Losses/Premium
1320 Operators Pumpers	\$ 6.81	\$ 4.43
6235 Drilling Crew	\$ 24.57	\$ 15.97



Where do we go from here ?

- Compliance will always be a tough sell to management
- Citation avoidance is a function of luck



Where do we go from here ?

- There is no good way to quantify the number of accidents and the cost of accidents that were avoided by our safety program
- There is no good way to quantify the number of spills or permitting violations that were avoided by our environmental management program



Driving Safety Performance through Accountability

“You can only manage what you can measure”
- Deming



Driving Safety Performance through Accountability

Safety needs to have Corporate Goals just like
Operations and Finance

1. Figure out how to tie Safety Goals to Operational Goals
2. Measure what matters most – Activities Drive Safety
3. Identify “Leading Indicators” and set goals
4. Develop and publish executive level exhibits regularly
5. Tie performance goals to performance reviews



Driving Environmental Performance through Accountability





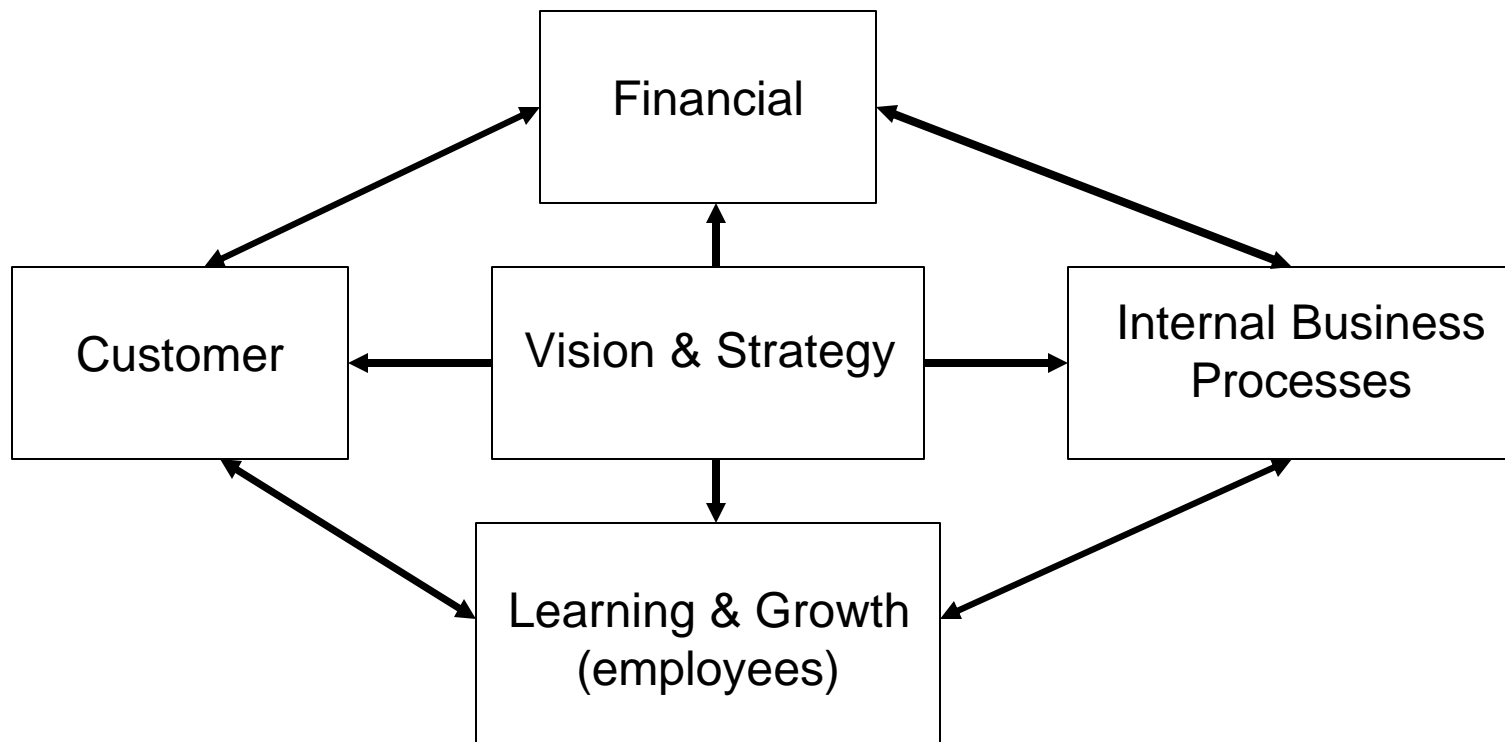
- Major League Baseball Team
 - Owner's Expectations: Make Money or Win the World Series ?

General Manager	Skipper (Manager)	Player
<ul style="list-style-type: none">- Revenue- Cost Control- Merchandise Sales- Attendance Numbers	<ul style="list-style-type: none">- Win/Loss %- Making Playoffs- Win World Series- Recruiting	<ul style="list-style-type: none">- Batting %- RBIs- ERA- Saves



History of Performance Management Theory

- Management By Objective
- Balanced Scorecard Approach – Kaplan/Norton



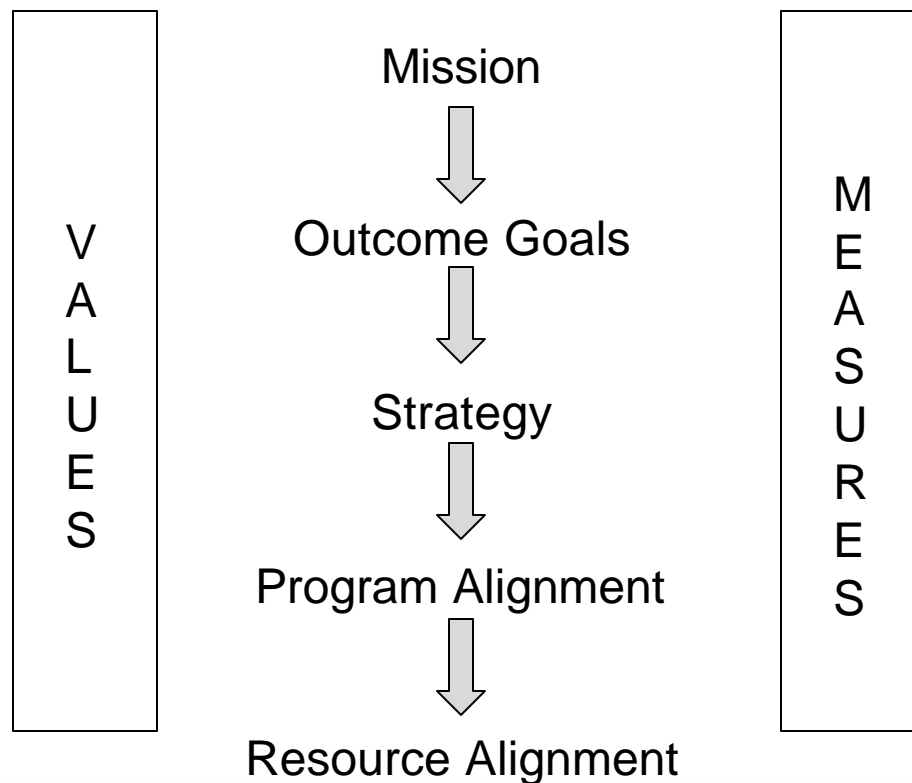


An example of a Balanced Scorecard – Southwest Airlines

Strategy	Objective	Measures	Targets	Initiatives
Financial <p>The diagram illustrates a Balanced Scorecard for Southwest Airlines with four perspectives and their causal relationships:</p> <ul style="list-style-type: none"> Financial Perspective: Includes measures 'Profitability', 'Lower Costs', and 'Increased Revenues'. Arrows point from 'Lower Costs' and 'Increased Revenues' to 'Profitability'. Customer Perspective: Includes measures 'More Customers', 'On-time Flights', and 'Low Prices'. Arrows point from 'On-time Flights' and 'Low Prices' to 'More Customers'. Internal Processes Perspective: Includes the measure 'Reduce Plane Turn Time'. Arrows point from 'On-time Flights' and 'Low Prices' to 'Reduce Plane Turn Time'. Learning Perspective: Includes the measure 'Align Crews'. An arrow points from 'Align Crews' to 'Reduce Plane Turn Time'. 				
Customer 				
Internal Processes 				
Learning 				



US Government is adopting a performance based process www.expectmore.gov





US Coast Guard's Performance Management Plan

BEFORE

Safe Waterways

Increase compliance
10%

Fines/Incentives

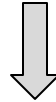
of Fines

Increase # Inspectors
and Training

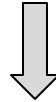
Mission



Outcome Goals



Strategy



Program Alignment



Resource Alignment

AFTER

Reduce Accidents/Deaths

Decrease Substance Abuse
and Increase Maritime Skill

Partner with Associations,
Community, & Not for Profit

10% reduction in Accidents
& Deaths

75% reduction in Accidents
& Fatalities



Accountability on all Levels

- Employee Performance reviews need to be tied to metrics to truly drive performance.
 - Safety = 10 – 30% of total
- For Executives, safety needs to be at least equal to production or financial incentives.





Safety Goals/Activities

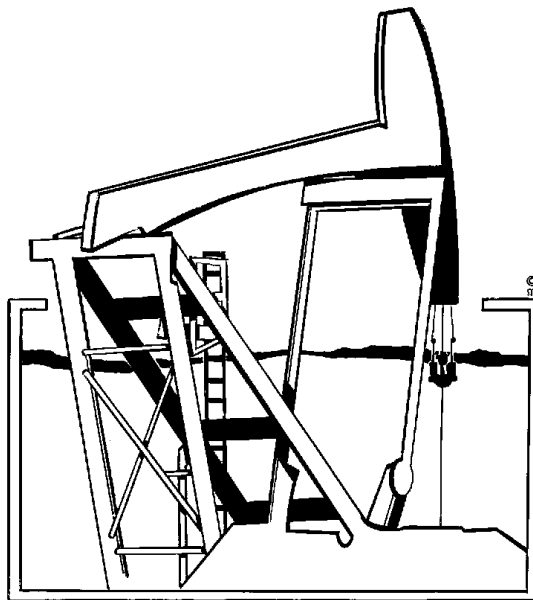
VP of Operations	District Manager Drilling Manager	Lead Pumper Tool Pusher Rig Operator	Pumper Rig Hand Truck Driver
<ul style="list-style-type: none">- Maximize Revenue- Control Costs- Number of field visits completed- Number of safety meetings attended	<ul style="list-style-type: none">- Pre-Qualified Contractors list updated- Well down time %- WC deductible costs- Property damage costs- Average days to close maintenance requests- % Safety Training completed	<ul style="list-style-type: none">- Daily Safety Huddle %- Competent Person Training Completed- Number of JSAs completed- Number of Safety Contracts- Rig Inspection score- % modified duty accommodated	<ul style="list-style-type: none">- % safety meetings attended- Be ready to start work- Maintain safe driving record- Wear PPE- Utilize designated medical provider- Keep worksite orderly



Leading Indicators vs. Lagging

Lagging Indicators

- TCR
- DART
- EMod
- WC Costs



Leading Indicators

- Management Commitment
- Supervisory engagement
- Hazards eliminated
- Training/Education
- Behavior Observations
- Attitudes about Safety
- Process Improvements



Leading Indicators in Energy Industry

Schlumberger

Goal:

Reduce Fatalities from driving



- Balancing workloads to reduce fatigue
- Dispatch and schedule to use safer highways
- Don't expect the crew to push home...get a room for the night
- Training on tire blowouts



Leading Indicators in Energy Industry

ExxonMobil

Goal:

Meet Delivery on Offshore Platform



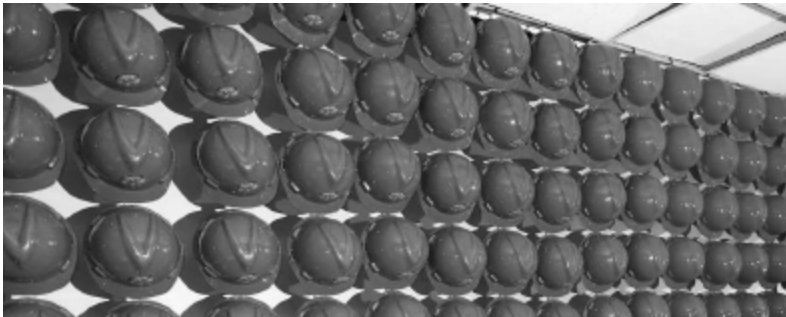
- Executive involvement in walk around inspections
- Foreman involvement in morning huddles
- Hazard Identification
- Observation & Coaching
- Housekeeping
- Training on Hazard Identification



Leading Indicators in Energy Industry

Grant Prideco Goal:

Develop ownership in a consistent safety management process



- Active Leadership by Executives
- Location Management Engaged and Responsible for Safety Process
- Hazard Abatement Closure Rate
- Order & Housekeeping
- % Safe
- Recognition



Leading Indicators in Energy Industry

Other Ideas



- Rig operator for workover company shares in profitability of rig
- Incentive programs encourage training attendance
- Imbed safety into task training
- Contractor Pre-Qualification
- Utilization of JSAs
- Safety should be 10-30% of total performance review



Closing Thoughts

Approach Safety like a Doctor

1. Ask where it hurts
2. Measure a couple of items to confirm
3. Prescribe a course of action
4. Identify 2-3 measures and track and adjust
5. Celebrate the success

Select another target and start over again building on what you have in place



Resources

- www.AESC.net
- www.IADC.org
- API/AESC – Safety Conference

- www.BalancedScoreCard.org
- www.ASSE.org
- American Strategic Management Institute



Resources (cont'd)

www.dbo2.com SafetyNet

www.clmi-training.com PerformTrax

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